

Claims:

1. Use of degenerate prolapsed intervertebral disk tissue for the production of a therapeutic agent for the treatment of intervertebral disk defects.
2. The use according to claim 1, characterized in that during growth, the intervertebral disk cells isolated from said degenerate prolapsed intervertebral disk tissue are cultured in a cell culture medium including 1-20% of added autologous serum, wherein the ratio of alpha-MEM medium and HAM-F12 medium is between 2:1 and 1:2, at 36.8-37°C in air containing 5% carbon dioxide and having a humidity of 85-95%.
3. The use according to any of the preceding claims, characterized in that the isolated intervertebral disk cells, following growth thereof in monolayer, are cultured in a cell culture medium including 1-20% of added autologous serum, wherein the ratio of alpha-MEM medium and HAM-F12 medium is between 2:1 and 1:2, at 36.8-37°C in air containing 5% carbon dioxide and having a humidity of 85-95%, thereby becoming capable of differentiating, forming matrix structures comprising specific intervertebral disk matrix proteins.
4. The use according to any of the preceding claims, characterized in that the isolated intervertebral disk cells, following growth thereof in monolayer, are frozen in a solution of 10% DMSO, 20% serum and 70% culture medium, followed by thaw-

ing, so that their properties with respect to the synthesis of specific matrix components and markers remain unchanged and tissue structures consisting of intervertebral disk-specific matrix proteins are formed *in vitro* and *in vivo*.

5. The use according to any of the preceding claims, characterized in that
the cells isolated from the intervertebral disk tissue are cultured in a culture vessel with hydrophobic surface and tapering bottom, thereby obtaining three-dimensional cell aggregates.
6. A method for the production of intervertebral disk cell transplants, characterized in that
intervertebral disk cells are isolated from prolapsed degenerate intervertebral disk tissue and/or affected intervertebral disk tissue and cultured as three-dimensional aggregates with addition of autologous serum, thereby obtaining three-dimensional intervertebral disk tissue transplants.
7. An intervertebral disk tissue regeneration agent, which can be obtained by isolating cells from degenerate intervertebral disk tissue, followed by culturing, harvesting and using the cells as an intervertebral disk regeneration agent.
8. The agent according to the preceding claim, characterized in that
multiple tissues are fused with each other.

9. The agent according to any of the preceding claims, characterized in that the agent is a mixture of cultured cells and said three-dimensional tissue.
10. The agent according to any of the preceding claims, which agent can be obtained by providing the intervertebral disk cell transplants in a vessel with tapering bottom and the intervertebral disk tissue aggregates in a syringe for transplantation and transplanting them into the intervertebral disk to be treated, namely, on the side opposite to that of the first surgery of the intervertebral disk, by means of injection using a puncture needle with slanted opening.
11. Use of the agents according to any of claims 7 to 10 in testing active substances.
12. A cell-therapeutic formulation, comprising intervertebral disk regeneration agents in accordance with any of claims 7 to 10.